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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,797	05/31/2000	Rosario A. Uceda-Sosa	POU9-2000-0018-US1	9330

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EXAMINER	
VO, LILIAN	

ART UNIT	PAPER NUMBER
2195	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/583,797	UCEDA-SOSA ET AL.	
	Examiner	Art Unit	
	Lilian Vo	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 – 33, 36 – 47 and 49 - 51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 – 33, 36 – 47 and 49 - 51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/31/00*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 33, 36 – 47 and 49 - 51 are pending. Claims 34, 35 and 48 have been cancelled.

Claim Objections

2. **Claims 2, 5 and 8** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 2, 5 and 8 recite locking of the at least one resource is performed without locking at least one other resource which is impossible and directly contradict independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 4, 5, 7, 8, 21, 47 and 49 - 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al. (US 4,698,752, hereinafter Goldstein) in view of Furlani et al. (US 5,995,998, hereinafter Furlani).

5. Regarding **claim 1**, Goldstein discloses a method of managing the locking of resources of a data repository, said method comprising:

determining whether a relationship between one resource and another resource of a data is a containment-based relationship or whether the relationship is reference-based relationship, wherein a data repository comprises a hierarchical structure of a plurality of resources; said hierarchical structure comprising one or more resources having a reference-based relationship and one or more resources having a containment-based relationship (col. 8 lines 30 – 34: "used in" or "included in").

Goldstein discloses the resources are locked based on its relationship but did not clearly disclose different type of locking strategy. Nevertheless, Furlani discloses two types of locking mechanism based on a search for a particular node and any related nodes (fig. 2A: group lock and reference lock, fig. 3, col. 6 line 51- col. 7 line 10). Therefore, it would have been obvious for one of an ordinary skill in the art, at the time the invention was made to incorporate Furlani's teaching together with Goldstein to utilize the lock mechanism as provided by Furlani based on the object interrelationships (Furlani: abstract) and to minimize the overhead involved in placing and detecting data locks (Goldstein: col. 1 lines 66 - 67).

6. Regarding **claim 2**, as modified Goldstein discloses the locking of said at least one resource is performed without locking at least one other resource of said plurality of resources (Furlani: abstract).

7. Regarding **claim 21**, as modified Goldstein discloses the determining comprises employing a set of policies (Goldstein: col. 5 lines 3 – 12, Furlani: fig. 2B).

8. Regarding **claim 49**, as modified Goldstein discloses the one type of locking strategy comprises a chained locking strategy (Furlani: col 6 line 60 – 62), and the another type of locking comprises a reference-based locking strategy (Furlani: col. 6 line 65 – col 7 line 1).

9. Regarding **claim 50**, as modified Goldstein discloses a containment-based relationship is a relationship in which there is only one reference from the one resource to the another resource (Furlani: fig. 2A).

10. Regarding **claim 51**, as modified Goldstein discloses a reference-based relationship is a relationship in which there is one or more references from the one resource to the another resource (Furlani: 2C and 3).

11. **Claims 4 , 5, 7, 8 and 47** are rejected on the same ground as stated in claims 1 – 2 and 21 above.

12. Claims 3, 6, 9, 10, 22, 23 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al. (US 4,698,752) in view of Furlani et al. (US 5,995,998), as applied to claims 1, 4 and 7 above, and further in view of Soltis et al (US 6,493,804, hereinafter Soltis),

13. Regarding **claim 3**, as modified Goldstein did not clearly disclose the additional limitation as claimed. Nevertheless, Soltis discloses the locking of said at least one resource is

further based on an operation to be performed (abstract, col. 9 lines 42 - 65). Therefore, it would have been obvious for one of an ordinary skill in the art, at the time the invention was made to incorporate as modified Goldstein's teaching together with Soltis to utilize the lock mechanism as provided by Furlani based on the object interrelationships (Furlani: abstract) and to minimize the overhead involved in placing and detecting data locks (Goldstein: col. 1 lines 66 - 67).

14. Regarding **claim 10**, as modified Goldstein discloses the operation comprises at least one of create, delete, read and write (Soltis: col. 9, lines 42 – 65, col. 14, lines 33 – 55, col. 19, lines 15 – 34).

15. Regarding **claim 22**, as modified Goldstein discloses the resource comprises at least one of a table and a directory (Soltis: fig. 5).

16. **Claims 6, 9, 23 and 36** are rejected on the same ground as stated in claims 3 and 10 above.

17. Claims 11 – 14, 24 – 27 and 37 - 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al. (US 4,698,752) in view of Furlani et al. (US 5,995,998), as applied to claims 1, 4 and 7 above, in view of Soltis et al (US 6,493,804) and further in view of Shaughnessy (US 5,555,388).

18. Regarding **claim 11**, as modified Goldstein discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second

resource, the first resource referencing the second resource (Furlani: fig. 2A). As modified Goldstein did not clearly specify the locking comprises write locking the first resource in order to create an instance of the second resource. Nevertheless, the concept can be found from Shaughnessy in which a write locking the first resource in order to create an instance the second resource (col. 10, lines 8 – 12: "Suppose, for example, a user is copying an Orders table. With a write lock in place, other users can concurrently view the table but cannot change the table structure or contents until the lock is lifted ...". Col. 10, lines 25 - 28). It would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this concept to modified Godlstein to prevent other users from changing the contents of a family of objects (Shaughnessy: col. 9, line 66 – col. 10, line 1).

19. Regarding **claim 12**, as modified Goldstein discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2A), wherein the locking comprises write locking the first resource and the second resource in order to delete an instance of the second resource (Shaughnessy: col. 9, line 44 – col. 10, line 37).

20. Regarding **claim 13**, as modified Goldstein discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2A), wherein the locking comprises read locking the second resource in order to read therefrom (Shaughnessy: col. 9, line 18 – col. 10, line 37 and col. 15, lines 42 - 44).

21. Regarding **claim 14**, as modified Goldstein discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2A), wherein the locking comprises write locking the second resource in order to write thereto (Shaughnessy: col. 9, line 18 – col. 10, line 37).

22. **Claims 24 – 27 and 37 - 40** are rejected on the same ground as stated in claims 11 – 14 above.

23. Claims 15 –20, 28 – 33 and 41 - 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein et al. (US 4,698,752) in view of Furlani et al. (US 5,995,998), as applied to claims 1, 4 and 7 above, in view of Soltis et al (US 6,493,804), and further in view of Annevelink (US 5,448,727).

24. Regarding **claim 15**, as modified Goldstein discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2C and 3). As modified Goldstein did not clearly disclose the locking comprises write locking the first resource in order to delete the first resource. However this concept can be found from Annevelink in which she discloses the reference-based relationship (Annevelink: col. 18, table 4 and fig. 6) and write locking the object in order to delete the object (Annevelink: col. 12, lines 27 – lines 31, lines 42 - 63). It would have been obvious for one of ordinary skill in the art, at the time the invention was

made to incorporate this feature to modified Goldstein to improve concurrency access to database.

25. Regarding **claim 16**, as modified Goldstein discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2C and 3), wherein the locking comprises write locking the first resource in order to create an instance of the second resource (Annevelink: col. 18, table 4, fig. 6, col. 11, lines 36 – 52, col. 12, lines 27 – lines 31, lines 42 – 63, col. 13, lines 25 – 46).

26. Regarding **claim 17**, as modified Goldstein discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2C and 3), wherein the locking comprises write locking the at least one instance of the first resource in order to delete the second resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 - 63).

27. Regarding **claim 18**, as modified Goldstein discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2C and 3), wherein the locking comprises read locking the first resource and the second resource in order to read the second resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 - 63).

28. Regarding **claim 19**, as modified Goldstein discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Furlani: fig. 2C and 3), wherein the locking comprises read locking the first and second resource and write locking the second resource in order to write to the second resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 - 63).

29. Regarding **claim 20**, as modified Goldstein discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource, a second resource and a third resource, the first resource and the second resource referencing the third resource (Furlani: fig. 2C and 3), wherein the locking comprises read locking the first and second resource and write locking the third resource in order to write the third resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 - 63).

30. **Claims 28 - 33 and 41 - 46** are rejected on the same ground as stated in claims 15 – 20 above.

Response to Arguments

31. Applicants' arguments with respect to claims 1, 4 and 7 have been considered but are moot in view of the new ground(s) of rejection as set forth above.

Conclusion

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The examiner can normally be reached on Thursday from 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilian Vo
Examiner
Art Unit 2195

lv
April 26, 2007

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